

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-14(canceled)

15.(currently amended) An ultrasonic surgical instrument comprising:

an ultrasonic blade having more than one half-wave segments, whereby a one-half wave segment [comprising] comprises a first portion, a second portion and a third portion, and the first portion comprising a first cross-sectional area and the second and third portions comprising a second cross-sectional area and different from the first cross-sectional area and wherein the first portion comprises a distal end and a proximal end, the distal end is connected to the second portion and the proximal end is connected to the third portion and wherein the third portion defines a first node and the second portion defines a second node and the first and second nodes define the one-half wave segment.

16.(currently amended) An ultrasonic surgical instrument comprising:

- a) a housing;
- b) a tubular sheath having a proximal end joined to the housing, and a distal end;
- c) an ultrasonic waveguide having more than one half-wave segments positioned within the tubular sheath and having an end effector extending distally of the distal end of the tubular sheath; the waveguide having a one-half wave segment comprising a first portion, a second portion and a third portion, and the first portion comprising a first cross-sectional area and the second and third portions comprising a second cross-sectional area and different from the first cross-sectional area and wherein the first portion comprises a distal end and a proximal end, the distal end is connected to the second portion and the proximal

end is connected to the third portion and wherein the third portion defines a first node and the second portion defines a second node and the first and second nodes define the one-half wave segment.

17.(previously presented) The ultrasonic surgical instrument of claim 16 further comprising a clamp arm pivotally mounted on the distal end of the tubular sheath for pivotal movement with respect to the end effector for clamping tissue between the clamp arm and end effector.

18.(previously presented) The ultrasonic surgical instrument of claim 15, wherein the first cross-sectional area is greater than the second cross-sectional area.

19.(previously presented) The ultrasonic surgical instrument of claim 15, wherein the first cross-sectional area is less than the second cross-sectional area.

20.(previously presented) The ultrasonic surgical instrument of claim 15, wherein the first cross-sectional area is constant.

21.(previously presented) The ultrasonic surgical instrument of claim 15, wherein the second cross-sectional area is constant.

22.(previously presented) The ultrasonic surgical instrument of claim 18, wherein the second cross-sectional area is variable.

23.(previously presented) The ultrasonic surgical instrument of claim 19, wherein the second cross-sectional area is variable.

24. (new) an ultrasonic blade having more than one half-wave segments, whereby a first one-half wave segment comprises a first portion, a second portion and a third portion, and the first portion comprising a first cross-sectional area and the second and third portions comprising a second cross-sectional area and different from the first cross-sectional area and wherein the first portion comprises a distal end and a proximal end, the distal end is connected to the second portion and the proximal end is connected to the third portion and

wherein the third portion has a proximal end that defines a first node and the second portion has a distal end that defines a second node and the first and second nodes define the one-half wave segment.

25.(new) The ultrasonic surgical instrument of claim 24, wherein the first cross-sectional area is greater than the second cross-sectional area.

26.(new) The ultrasonic surgical instrument of claim 24, wherein the first cross-sectional area is less than the second cross-sectional area.

27.(new) The ultrasonic surgical instrument of claim 24, wherein the first cross-sectional area is constant.